

INTRODUCTION

~~CONFIDENTIAL~~
Security Information

NATIONAL INTELLIGENCE SURVEY

STANDARD INSTRUCTIONS

NATURE, PURPOSE, AND SCOPE
OF THE NIS PROGRAM

CENTRAL INTELLIGENCE AGENCY
Washington, D. C.

DOCUMENT NO. 1
NO CHANGE IN CLASS P
11 DECLASSIFIED
CLASS CHANGED TO: TS S C
NEXT REVIEW DATE: _____
AUTH: HR 70-2
DATE: 7/27/80 REVIEWER: 009256

~~CONFIDENTIAL~~

Nature, Purpose, and Scope of the NIS Program

Authority for the NIS Program

The National Intelligence Survey (NIS) Program was established pursuant to National Security Council Intelligence Directive No. 3, 13 January 1948. This directive provides that:

An outline of all basic intelligence required by the Government shall be prepared by the Central Intelligence Agency (CIA) in collaboration with other appropriate agencies.

This outline shall be broken down into chapters, sections, and subsections which shall be allocated as production and maintenance responsibilities to CIA and those other Government agencies best qualified by reason of their intelligence requirements, production capabilities, and dominant interest to assume these responsibilities.

This basic intelligence shall be compiled and continuously maintained in National Intelligence Survey to cover foreign countries, areas, or broad special subjects, as appropriate.

The NIS shall be disseminated in such form as may be determined by the Director of Central Intelligence (DCI) and the agencies concerned.

The DCI shall be responsible for coordinating the production and maintenance and for accomplishing the editing, publication, and dissemination of the NIS and shall make such requests on the agencies as are necessary for the proper development and maintenance of the NIS.

Departments or agencies to be called on for contributions to this undertaking may include agencies other than those represented permanently in the Intelligence Advisory Committee (IAC).

Basic Concepts of the NIS Program

The NIS is a concise digest of basic intelligence required by the Department of Defense for strategic planning and high level operational planning, and by the Department of State for use in formulating and executing U.S. foreign policy. It also serves other Government agencies which require it for the accomplishment of their missions. In general, the intelligence contained in NIS is concerned with the relatively permanent features and fundamental characteristics of a country, area, or broad special subject, and covers such fields as the geographical, political, economic, military,

scientific, and sociological aspects of the country or area or the fundamental aspects of the broad special subject.

The NIS Program has two phases: 1) the initial production of NIS on countries or areas in accordance with JCS priorities and Intelligence Agency capabilities and 2) the continuous maintenance of such NIS.

The objective of the first phase is to produce integrated basic intelligence studies of all pertinent aspects of the countries or areas within the limits of available information and intelligence on countries or areas.

The objective of the second phase is to keep up to date the basic intelligence contained in the published NIS, to fill gaps in this intelligence, and to improve the presentation of material in NIS originally produced. It is the responsibility of agencies having dominant interest to place each NIS element actively on a maintenance basis as soon as the element has been initially produced. This phase of the program is to continue indefinitely. Revisions will be published as required.

Both phases of the NIS Program require an over-all collection effort covering all important foreign countries and areas of the world simultaneously.

If information is available to undertake an NIS of lower priority than one on which adequate material is not available, the NIS of lower priority will be produced and will not be held in abeyance pending the availability of material for the NIS of higher priority.

While the aim of the collection effort will be to enable the production of complete and reliable published NIS, it must be recognized that the production and maintenance program requires information in greater detail than the intelligence which appears in the published NIS.

New information will be continuously processed so that the intelligence on hand will be constantly up to date and ready for use.

The NIS Program must be flexible in order to meet the basic intelligence requirements of the Joint Chiefs of Staff. To this end it may be necessary to produce and disseminate separate chapters or sections of any NIS.

Standard Instructions for NIS

The *Standard Instructions for National Intelligence Surveys* contain outlines of basic intelligence requirements, allocations of responsibility for production, and instructions for the production of this intelligence. These *Standard Instructions* were prepared by a joint committee of representatives of the Director of Central Intelligence and the Chiefs of Intelligence Agencies of the Departments of State, the Army, the Navy, and the Air Force; were concurred in by the Intelligence Advisory Committee; and were approved by the National Security Council.

The outlines and outline guides are so drafted as to cover all the basic intelligence aspects of the most complex foreign country or area. However, the appropriate treatment of any topic included in the outlines and outline guides is determined by the sense in which and the extent to which that topic applies to the particular country or area under consideration. Thus, the outlines and outline guides should be adapted to the country or area on which the NIS is being produced.

The *Standard Instructions* prescribe the basic procedures to be followed in producing and maintaining all NIS. They cannot, however, cover all contingencies. Hence, when cogent reasons exist, the instructions may be modified or supplemented to permit appropriate treatment of any topic.

Content of an NIS

An NIS is divided into chapters, each of which treats a major functional aspect of the country or area under consideration. These chapters are divided into sections, each of which treats a major subdivision of the field covered by the chapter. The section is so designed as to permit it to serve as the basic unit of production and maintenance and so enhance the flexibility of the NIS Program. The NIS chapters are as follows:

Chapter	I	Brief
Chapter	II	Military Geography
Chapter	III	Transportation and Telecommunications
Chapter	IV	Sociological
Chapter	V	Political
Chapter	VI	Economic
Chapter	VII	Scientific
Chapter	VIII	Armed Forces
Chapter	IX	Map and Chart Appraisal

Certain topics involving numerous details are given general treatment in appropriate sections of NIS chapters and full treatment in supplements. Supplements are prepared only if the topic in question is sufficiently important in an NIS Area to warrant this detailed treatment. There are, at present, the following five supplements:

NIS Supplement No. I	Ports and Naval Facilities
NIS Supplement No. II	Air Facilities
NIS Supplement No. III	Telecommunications

NIS Supplement No. IV	Urban Areas
NIS Supplement No. V	Petroleum

The Special NIS on Marine Climate and Oceanography divides the world sea areas into ocean basins. These ocean basins are further subdivided into Parts, each of which is comparable to a chapter in the other NIS. The production unit is a Part, each of which will consist of three sections. Ocean basins are designated as follows:

NIS 104	Atlantic Basin	12 Parts
NIS 105	Pacific Basin	12 Parts
NIS 106	Indian Basin	4 Parts
NIS 107	Arctic Basin	1 Part
NIS 108	Antarctic Basin	1 Part

A gazetteer will be published for each NIS Area.

The geographic areas covered by the NIS are generally defined by political boundaries. In CHAPTERS II (Military Geography), however, areas are determined in terms of natural geographic units.

In some instances, it is desirable to define the geographic area in terms of natural boundaries. For example, since the Iberian Peninsula, including the approaches into the Pyrenees from France, forms a natural geographic concept, it should be considered geographically as a whole. Thus, the geographic treatment of this area would serve as CHAPTER II for both NIS Portugal and NIS Spain.

Conversely, the area included within political boundaries may be so extensive as to embrace several natural geographic units. Examples of such areas are the U.S.S.R. and China. CHAPTERS II for these areas would consist of several Parts, each treating a natural geographic unit.

In addition, it will be necessary to transcend political boundaries in many instances in order to obtain comprehensive treatment of certain functional aspects, such as transportation and ports and naval facilities; and such procedure should be followed wherever necessary.

The scope of each chapter, supplement, and Special NIS is outlined in detail under the Outline Guides in this volume. Chapter and section outline guides in general include initial comments relative to content of the unit as a whole which are not repeated with but are pertinent to the detailed outlines for individual sections and subsections. The following standard definitions apply explicitly to CHAPTERS II-IX and by implication to CHAPTER I:

a) The first section of each chapter is uniformly entitled Introduction. This section is not a summary of the basic intelligence contained in the remainder of the chapter or an explanation of the organization of the chapter. Rather, it presents an analysis of the basic intelligence contained in the chapter. It also presents general aspects which cannot be treated adequately elsewhere in

JUNE 1951

NATURE, PURPOSE, AND SCOPE

~~CONFIDENTIAL~~

the chapter. For example, the organization and functions of the high command are covered in SECTION 80 (Introduction to CHAPTER VIII, Armed Forces) because this topic cannot be adequately treated in the subsequent sections of CHAPTER VIII. The chapter outline guides indicate the nature and scope of the treatment to be accorded the Introduction of each chapter.

b) The first subsection of each section is uniformly entitled General. This subsection is provided to permit a proper approach to the treatment of material contained in the remainder of the section.

c) The last subsection of most sections is uniformly entitled Comments on Principal Sources. This subsection is to serve the following purposes:

To provide an evaluation of the principal source material used in preparing the section and thereby inform the user of the general credibility to be accorded the intelligence contained in the section.

To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

Summary of agency functions

1. GENERAL

Where one agency is responsible for a section of a chapter or a subsection of a section which is being coordinated by another agency, working level liaison shall be maintained. All communications of a policy or requirements nature to the agency preparing the section or subsection will be passed through intelligence command channels.

In all instances working level coordination among agencies concerned will include the following:

Exchange, where applicable, of drafts of completed draft sections in order to resolve inconsistencies among sections and detect gaps in over-all coverage.

Informal coordination in compiling specific subsections which are assigned as the responsibility of one agency but impinge upon the field of interest of another.

2. NIS COMMITTEE

The NIS Committee consists of representatives of the Director of Central Intelligence and the Chiefs of the Intelligence Agencies of the Departments of State, the Army, the Navy, and the Air Force. The representative of the Director of Central Intelligence is *ex officio* chairman of the committee. It also includes an advisory member from the Joint Staff who shall be thoroughly familiar with the basic intelligence requirements of the Joint Chiefs of Staff (JCS), keep the JCS informed of the progress of the NIS Program, and

keep the NIS Committee informed of changes in the JCS requirements.

The NIS Committee performs the following functions:

Considers and recommends for Intelligence Agency approval over-all policies for the NIS Program.

Determines the scope and treatment of each NIS to be produced.

Allocates responsibility for production and maintenance of NIS in accordance with the intelligence requirements, production capabilities, and dominant interest of the Intelligence Agencies concerned.

Establishes NIS production and maintenance schedules based upon JCS priorities and agency capabilities.

Promulgates procedures and instructions for the preparation, review, editing, and submission of NIS contributions.

Recommends to CIA measures necessary for the coordination of the NIS Program.

3. CENTRAL INTELLIGENCE AGENCY

The Central Intelligence Agency performs the following functions:

Provides over-all coordination of the NIS Program.

Produces those elements of NIS allocated to it for production by the NIS Committee.

Furnishes certain common services which can best be done centrally.

Edits NIS contributions, provides advisory substantive review, and arranges for the publication of NIS.

Disseminates NIS in accordance with Intelligence Agency agreements.

4. IAC AGENCIES

The IAC Agencies (State, Army, Navy, and Air Force) perform the following functions:

Provide a member and alternate members of the NIS Committee. This member represents, and speaks for, the Chief of the Intelligence Agency of the Department from which he is accredited.

Produce and maintain the NIS elements which have been allocated by the NIS Committee as production responsibilities.

Implement collection effort which may be required for NIS production and maintenance.

5. NON-IAC AGENCIES

The non-IAC Agencies perform the following functions:

Produce and maintain portions of NIS when explicitly assigned that responsibility by the NIS Committee or by an Intelligence Agency with the approval of that Committee.

Furnish Intelligence Agencies with material for integration into NIS by those agencies.

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~
Security Information

NATIONAL INTELLIGENCE SURVEY

STANDARD INSTRUCTIONS

ALLOCATION OF RESPONSIBILITY FOR
PREPARATION OF NIS

CENTRAL INTELLIGENCE AGENCY
Washington, D. C.

~~CONFIDENTIAL~~

Allocation of Responsibility for Preparation of NIS

Neither the following allocations nor any interpretation thereof shall negate the basic principle that each department is responsible for the production of that intelligence which is responsive to its departmental mission.

CHAPTER I—BRIEF

JOINT EFFORT COORDINATED BY CIA

- Section 10—Introduction
11—Strategic Significance of the NIS Area
12—Military Geography
13—Transportation and Telecommunications
14—Sociological
15—Political
16—Economic
17—Scientific
18—Armed Forces
19—Map and Chart Appraisal

CIA
CIA (with joint assistance)
Army (with joint assistance)
Army (with joint assistance)
State (with joint assistance)
State
State (with joint assistance)
CIA (with joint assistance)
Army (with joint assistance)
CIA (with joint assistance)

CHAPTER II—MILITARY GEOGRAPHY

ARMY—CHAPTER COORDINATOR

- Section 20—Introduction
21—Military Geographic Regions
22—Coasts and Landing Beaches
23—Weather and Climate
24—Topography
25—Urban Areas

Army (with joint assistance)
Army
Navy (with Army assistance)
Joint Meteorological Committee
Army
Army

CHAPTER III—TRANSPORTATION AND TELECOMMUNICATIONS

ARMY—CHAPTER COORDINATOR

- Section 30—Introduction
31—Railway
32—Highway
33—Inland Waterway
34—Petroleum Pipeline (treated in Sub-section 62, C and Supplement V)
35—Ports and Naval Facilities
36—Merchant Marine
37—Civil Air
38—Telecommunications

Army (with joint assistance)
Army
Army
Army

Joint Army-Navy
Navy
Air Force (with Navy participation)
Army

CHAPTER IV—SOCIOLOGICAL

STATE—CHAPTER COORDINATOR

- Section 40—Introduction
41—Population
42—Characteristics of the People
43—Religion, Education, and Public Information
44—Manpower
45—Health and Sanitation
46—Public Welfare

State
State (with Army assistance)
State
State
State
Army
State

CHAPTER V—POLITICAL

Section 50—Introduction

- 51—The Constitutional System
- 52—Structure of the Government
- 53—Political Dynamics
- 54—Public Order and Safety
- 55—National Policies
- 56—Intelligence and Security
- 57—Subversive
- 58—Propaganda
- 59—Biographies of Key Personalities

STATE—CHAPTER COORDINATOR

State
State
State
State
State
State (with joint assistance)
CIA (with joint assistance)
State (with joint assistance)
State
State

CHAPTER VI—ECONOMIC

Section 60—Introduction

- 61—Agriculture and Food

62—Fuels and Power

D. Electric power

63—Minerals and Metals

F. Construction materials

64—Manufacturing and Construction

- A. General
- B. Industrial machinery and equipment
- C. Motor vehicles (including tanks, self-propelled guns, etc.)
- D. Aircraft production
- E. Shipbuilding
- F. Explosives, industrial and military
- G. Guns, explosive devices, and ammunition
- H. Other military equipment and supplies (including war gases and smoke preparations)
- I. Telecommunications, signal and lighting equipment
- J. Chemical industries
- K. Agricultural processing industries
- L. Fibers, fabrics, and rubber
- M. Construction industries
- N. Other industries
- O. Comments on principal sources

65—Trade and Finance

CIA—CHAPTER COORDINATOR

State (with joint assistance)
State (with the assistance of the Department of Agriculture and the Fish and Wildlife Service, Department of the Interior)
State (with assistance of the Department of the Interior)
Army
State (with the assistance of the Department of the Interior)
Army

STATE—SECTION COORDINATOR

State
State (primary responsibility)
Army

Air Force (with Navy participation)
Navy
Army (with joint assistance)
Army (with joint assistance)
Army (with joint assistance)

Army (with joint assistance)

State
State
State
State
State
State (with joint assistance)

State

CHAPTER VII—SCIENTIFIC

Section 70—Introduction

71—Electronics

CIA—CHAPTER COORDINATOR

CIA is to produce final draft with contributions from Navy and Air Force; guidance from Army and State.
CIA to coordinate through the JEIC the final draft based upon contributions from all intelligence agencies.

JUNE 1951

A L L O C A T I O N S

~~CONFIDENTIAL~~CHAPTER VII—SCIENTIFIC (*Continued*)

72—Air, Ground, and Naval Weapons

73—Atomic Energy

74—Biological Warfare (BW)

75—Chemical Warfare (CW)

76—Miscellaneous

CHAPTER VIII—ARMED FORCES

- Section 80—Introduction
- 81—Ground Forces
- 82—Naval Forces
- 83—Air Forces

CHAPTER IX—MAP AND CHART APPRAISAL

Section 90—Introduction

- 91—Selected Maps, Charts, and Plans
 - A. General
 - B. Physical maps, navigation charts of urban areas
 - C. Maps of transportation and communications
 - D. Sociological, political, and economic maps
 - E. Special armed forces maps
- 92—Appraisal of Selected Maps, Charts, and Plans

SUPPLEMENT I—PORTS AND NAVAL FACILITIES

SUPPLEMENT II—AIR FACILITIES

SUPPLEMENT III—TELECOMMUNICATIONS

CIA—CHAPTER COORDINATOR

CIA to coordinate, through SIC working committees where practicable, the final draft with contributions on:

Guided missiles and aircraft from the Air Force;

Ground weapons from the Army; Naval weapons from the Navy.

CIA to coordinate through the JAEIC the final draft with contributions from other intelligence agencies.

CIA to coordinate through JBWIC and JCWIC, respectively, the final drafts based upon contributions from Army and from other intelligence agencies.

CIA to coordinate through JBWIC and JCWIC, respectively, the final drafts based upon contributions from Army and from other intelligence agencies.

CIA to produce final draft based upon contributions from other intelligence agencies.

ARMY—CHAPTER COORDINATOR

Army (with joint assistance)

Army

Navy

Air Force (with Navy participation)

CIA—CHAPTER COORDINATOR

CIA (as coordinating staff for material received from Army, Navy, Air Force, and MATS)

CIA—SECTION COORDINATOR

CIA

Army, Navy, Air Force, MATS

Army, Navy, Air Force, CIA

CIA

Army, Navy, Air Force

CIA (as coordinating staff for material received from Army, Navy, Air Force, and MATS)

JOINT ARMY-NAVY

Air Force (with Navy participation)

ARMY

~~CONFIDENTIAL~~

~~CONFIDENTIAL~~
A L L O C A T I O N S

JUNE 1951

SUPPLEMENT IV—URBAN AREAS

ARMY

SUPPLEMENT V—PETROLEUM

STATE (with assistance of the Department of the Interior)

SPECIAL NIS—MARINE CLIMATE AND OCEANOGRAPHY

NAVY

Section 1—Introduction
2—Marine Climate
3—Oceanography

Navy
Navy (with assistance of the Air Force)
Navy

~~CONFIDENTIAL~~
Security Information

NATIONAL INTELLIGENCE SURVEY

STANDARD INSTRUCTIONS

NIS AREAS

CENTRAL INTELLIGENCE AGENCY
Washington, D. C.

~~CONFIDENTIAL~~

NIS Areas

(Offshore island possessions are normally included in the related NIS Areas; see NIS Base Maps for definitive boundaries.)

SHORT FILE	TITLE	GENERAL NIS AREA	GEOGRAPHIC AREA FOR CHAPTER II
25X6A			
NIS 2	Ireland (Eire)	Republic of Ireland	NIS Areas 1-2
NIS 3	France	France and Monaco	NIS Area 3
NIS 4	Netherlands	Netherlands	NIS Areas 4-6
NIS 5	Belgium	Belgium	NIS Areas 4-6
NIS 6	Luxembourg	Luxembourg	NIS Areas 4-6
NIS 7	Denmark	Denmark, including the Faeroe Islands.	NIS Area 7
NIS 8	Portugal	Portugal, including the Azores, Madeira and Cape Verde Islands.	NIS Areas 8-9
NIS 9	Spain	Spain and Andorra	NIS Areas 8-9
NIS 10	Norway	Norway	NIS Areas 10-11
NIS 11	Sweden	Sweden	NIS Areas 10-11
25X6A	Finland	Finland	NIS Area 12
NIS 14	Poland	Poland, within 1945 boundaries and limits of administration, including the former Free City of Danzig, and the portions of Germany under Polish administration.	NIS Area 14
NIS 15	Switzerland	Switzerland and Liechtenstein	NIS Areas 15-16
NIS 16	Austria	Austria	NIS Areas 15-16
NIS 17	Italy	Italy, San Marino, and the Free Territory of Trieste.	NIS Area 17
NIS 18	Czechoslovakia	Czechoslovakia	NIS Area 18
NIS 19	Hungary	Hungary	NIS Areas 19-21
NIS 20	Albania	Albania	NIS Areas 19-21
NIS 21	Yugoslavia	Yugoslavia	NIS Areas 19-21
NIS 22	Rumania	Rumania	NIS Areas 22-23
NIS 23	Bulgaria	Bulgaria	NIS Areas 22-23
NIS 24	Greece	Greece	NIS Area 24
NIS 25	Cyprus, Malta, and Gibraltar	Cyprus, Maltese Islands, and Gibraltar.	NIS Area 25
NIS 26	U.S.S.R.	U.S.S.R., within 1945-1947 boundaries and limits of administration, including the three Baltic states, northern East Prussia, Tannu Tuva, and the Kuril and Sakhalin Islands.	NIS Area 26: <i>Part I</i> —European U.S.S.R. within 1945-1947 boundaries and limits of administration, including three Baltic States, northern East Prussia. <i>Part II</i> —Soviet Central Asia. <i>Part III</i> —Urals and West Siberian Plain including Tannu Tuva. <i>Part IV</i> —Central and Eastern Siberia including Kuril and Sakhalin Islands. <i>Part V</i> —The Caucasus, including Soviet trans-Caucasus.
NIS 27	Turkey	Turkey	NIS Area 27
NIS 28	Syria and Lebanon	Syria and Lebanon	NIS Areas 28-31
NIS 29	Jordan	Jordan, excluding Arab Palestine.	NIS Areas 28-31
25X6A	Iraq	Iraq	NIS Areas 28-31

SHORT TITLE	TITLE	GENERAL NIS AREA	GEOGRAPHIC AREA FOR CHAPTER II
NIS 32	Arabian Peninsula	Arabian Peninsula, including Saudi Arabia, Kuwait, Kuwait-Saudi Arabia Neutral Zone, Iraq-Saudi Arabia Neutral Zone, Bahrain, Qatar, Trucial Oman, Muscat and Oman, Yemen, Aden Colony and Protectorate.	NIS Area 32
NIS 33	Iran	Iran	NIS Area 33
NIS 34	Afghanistan	Afghanistan	NIS Area 34
NIS 35	India	India, including Jammu and Kashmir, Nepal, Bhutan, and Portuguese and French territories in India, Andaman, Laccadive and Nicobar Islands.	NIS Area 35: <i>Part I</i> —Northern India, including Jammu and Kashmir, Nepal, and Bhutan, the Portuguese territory in northern India, all of Pakistan and the Oman settlement of Gwadar. <i>Part II</i> —Peninsular India, including the Portuguese and French territories in Peninsular India.
NIS 36	Pakistan	East and West Pakistan (excluding Jammu and Kashmir), and including the Oman settlement of Gwadar.	NIS Area 36 (Same as NIS Area 35, <i>Part I</i>)
NIS 37	Ceylon	Ceylon	NIS Area 37
NIS 38	Burma	Burma	NIS Area 38
NIS 39	China	China, including Hong Kong and Macao.	NIS Area 39: <i>Part I</i> —Western China and Mongolia <i>Part II</i> —Manchuria <i>Part III</i> —North China <i>Part IV</i> —South China, including Taiwan, Hong Kong, and Macao
NIS 40	Mongolia	Mongolia (Outer Mongolia or the "Mongolian People's Republic").	NIS Area 40 (Same as NIS Area 39, <i>Part I</i>)
NIS 41	Korea	Korea	NIS Area 41
NIS 42	Thailand	Thailand	NIS Area 42
NIS 43	Indochina	Indochina, the Paracel Islands, Spratley Island and other disputed islands and reefs in South China Sea south of Paracel Islands.	NIS Area 43
NIS 44 25X6A	British Indonesia	Federation of Malaya, Singapore, Sarawak, Brunei, and North Borneo.	NIS Area 44
NIS 46	Tunisia	Tunisia	NIS Areas 46-48
NIS 47	Algeria	Algeria	NIS Areas 46-48
NIS 48	Morocco	French Morocco, Spanish Morocco (northern Spanish zone in Morocco), Ifni, and International Zone of Tangier.	NIS Areas 46-48
NIS 49	Libya	Libya	NIS Area 49
NIS 50	West Africa	French West Africa, Spanish Sahara (Rio de Oro, including the southern Spanish zone in Morocco), Portuguese Guinea, Gambia, Sierra Leone, Gold Coast, British Togoland, French Togoland, Nigeria and British Cameroons.	NIS Area 50: <i>Part I</i> —French West Africa except territories listed under <i>Part II</i> below, Spanish Sahara (Rio de Oro, including southern Spanish zone in Morocco), Gambia, Portuguese Guinea, Sierra Leone. <i>Part II</i> —The following parts of French West Africa: Ivory Coast and Dahomy and the following other areas: Liberia, Gold Coast, British Togoland, French Togoland, Nigeria and British Cameroons.
NIS 51	Liberia	Liberia	NIS Area 51 (Same as NIS Area 50, <i>Part II</i>)

JUNE 1951

NIS AREAS

~~CONFIDENTIAL~~

SHORT TITLE	TITLE	GENERAL NIS AREA	GEOGRAPHIC AREA FOR CHAPTER II
NIS 52	Equatorial Africa	French Equatorial Africa, French Cameroons, Spanish Guinea (including Rio Muni), and Cambinda.	NIS Area 52
NIS 53	Egypt	Egypt	NIS Area 53
NIS 54	Anglo-Egyptian Sudan	Anglo-Egyptian Sudan	NIS Area 54
NIS 55	Ethiopia, Eritrea and the Somalilands	Ethiopia, Eritrea, British, French and Italian Somaliland.	NIS Area 55
NIS 56	British East Africa	Kenya, Uganda, Tanganyika, Zanzibar Protectorate.	NIS Area 56
NIS 57	Rhodesia and Nyasaland	Northern Rhodesia, Southern Rhodesia, Nyasaland.	NIS Areas 57-58
NIS 58	Mozambique	Mozambique	NIS Areas 57-58
NIS 59	Angola	Angola	NIS Areas 59-60
NIS 60	Belgian Congo	Belgian Congo and Ruanda-Urundi.	NIS Areas 59-60
NIS 61	South Africa	Union of South Africa, South-West Africa, Bechuanaland, Swaziland and Basutoland.	NIS Area 61
NIS 62	Madagascar	Madagascar	NIS Area 62
NIS 63	Indian Ocean Islands	All outlying islands in the Indian Ocean, southward to 60° S. latitude, except islands covered in NIS 32, 35, 37, 55, 56, 62, and 100.	NIS Area 63
NIS 64	South Atlantic Island	All outlying islands in the Atlantic Ocean between 10° N. latitude and 60° S. latitude and the South Orkney and South Shetland Island groups, but excluding islands covered by NIS 52.	NIS Area 64
25X6A			
NIS 67	Greenland	Greenland	NIS Area 67
NIS 68	Iceland	Iceland	NIS Area 68
25X6A	North Polar Area	North Polar Area	NIS Area 69
25X6A			
NIS 71	Guatemala	Guatemala	NIS Areas 71-77
NIS 72	British Honduras	British Honduras	NIS Areas 71-77
NIS 73	Honduras	Honduras, including territory north of the Segovia River and islands possibly subject to Nicaraguan claims.	NIS Areas 71-77
NIS 74	Salvador	Salvador, including small areas claimed by Honduras.	NIS Areas 71-77
NIS 75	Nicaragua	Nicaragua, including territory south of the Segovia R.	NIS Areas 71-77
NIS 76	Costa Rica	Costa Rica	NIS Areas 71-77
NIS 77	Panama	Panama	NIS Areas 71-77
NIS 78	Cuba	Cuba	NIS Areas 78-84: <i>Part I</i> —Greater Antilles, Bermuda and Bahama Is. <i>Part II</i> —Lesser Antilles
NIS 79	Haiti	Haiti	NIS Areas 78-84
NIS 80	Dominican Republic	Dominican Republic	NIS Areas 78-84
NIS 81	British Possessions in the Caribbean	All islands and bays under British sovereignty in the Caribbean, and the Bahama Is. and Bermuda.	NIS Areas 78-84
NIS 82	Dutch Possessions in the Caribbean	All Caribbean islands under Netherlands sovereignty, including part of St. Martin I.	NIS Areas 78-84
NIS 83	French Possessions in the Caribbean	All Caribbean islands under French sovereignty, including part of St. Martin I.	NIS Areas 78-84
NIS 84	U.S. Possessions in the Caribbean	All Caribbean islands under U.S. sovereignty or claim, and islands where U.S. has lease or treaty rights.	NIS Areas 78-84

~~CONFIDENTIAL~~

SHORT TITLE	TITLE	GENERAL NIS AREA	GEOGRAPHIC AREA FOR CHAPTER II
NIS 85	Colombia	Colombia	NIS Areas 85-86
NIS 86	Venezuela	Venezuela	NIS Areas 85-86
NIS 87	Ecuador	Ecuador and small area on eastern border disputed with Peru.	NIS Areas 87-88
NIS 88	Peru	Peru	NIS Areas 87-88
NIS 89	Chile	Chile, including Pacific Islands east of 90° W. longitude and islands south of Tierra del Fuego disputed with Argentina.	NIS Area 89
NIS 90	Argentina	Argentina, including river islands disputed with Uruguay.	NIS Areas 90-79
NIS 91	Uruguay	Uruguay	NIS Areas 90-91
NIS 92	Paraguay	Paraguay	NIS Areas 92-93
NIS 93	Bolivia	Bolivia	NIS Areas 92-93
NIS 94	Brazil	Brazil	NIS Area 94: Part I—Southeast Brazil Part II—Northwest Brazil
25X6A	The Guianas	The Guianas (British, French, Dutch)	NIS Area 95

NIS 99	Philippine Is.	Philippine Is.	NIS Area 99
NIS 100	Indonesia	Indonesia, including all of the former Netherlands Indies and Portuguese Timor.	NIS Area 100
NIS 101	West Pacific Islands	All islands in the Trust Territory of the Pacific Islands, and the islands of Marcus and Wake.	NIS Area 101
NIS 102	Southwest Pacific Islands	Papua, Trust Territory of New Guinea, British Solomon Islands, New Hebrides, New Caledonia and dependencies, Fiji Is., Tonga Is., Gilbert and Ellice Is. and lesser adjacent islands, but not including islands covered by NIS 96, 97, and 103.	NIS Area 102
NIS 103	South Pacific Islands	Phoenix, Tokelau, Samoa, Cook and Line island groups, and adjacent islands, the French Establishments in Oceania, Pitcarin and adjacent British islands, and Chilean islands west of 90° W. longitude.	NIS Area 103

SPECIAL NIS AREAS

(Oceanography and Marine Climate)

NIS 104	Atlantic Basin	Atlantic Ocean	NIS Area 104
NIS 105	Pacific Basin	Pacific Ocean	NIS Area 105
NIS 106	Indian Basin	Indian Ocean	NIS Area 106
NIS 107	Arctic Basin	Arctic Ocean	NIS Area 107
NIS 108	Antarctic Basin	Antarctic Ocean	NIS Area 108

Next 2 Page(s) In Document Exempt

~~CONFIDENTIAL~~
Security Information

NATIONAL INTELLIGENCE SURVEY

STANDARD INSTRUCTIONS

EDITORIAL INSTRUCTIONS

CENTRAL INTELLIGENCE AGENCY
Washington, D. C.

~~CONFIDENTIAL~~

JUNE 1951

~~CONFIDENTIAL~~

EDITORIAL INSTRUCTIONS

CONTENTS

	<i>Page</i>
A. Transmittal of material	1
1. Letter of transmittal	1
2. Manuscript	1
3. Graphic material	1
B. Text specifications	1
1. Typing of text	1
2. Text headings	2
3. References to figures and text	2
4. Quotations and extract matter	2
5. Sample pages	2
6. Footnotes	2
7. Reference to sources	3
C. Tabular specifications	3
1. Tabulations	3
2. Tables	3
3. Typing of tables	3
4. Titles and figure numbers	3
5. Stubs and column headings	3
6. Footnotes and source references	4
7. Conventional entries	4
8. Statistical totals	4
9. Table construction	4
D. Graphic specifications	5
1. General	5
2. Photographs	6
3. Maps	6
E. General	7
1. NIS Supplement specifications	7
2. Classification and control	7
3. Treatment of names	7
4. Technical terminology	7
5. Statistical data	8
6. Return of material	8
7. Editorial style	8

~~CONFIDENTIAL~~

Editorial Instructions

A. Transmittal of material

1. LETTER OF TRANSMITTAL

NIS material delivered to the Basic Intelligence Division (D/B), CIA requires a letter of transmittal (original and 2 copies). The letter itemizes the number of pages of text and table manuscript, table of contents and other typed material submitted, and indicates any omission of material or other deviation from standard procedure. The letter specifies control aspects of material involved. The letter of transmittal also indicates the number of extra copies of insert maps which the contributor desires run without NIS reference lines (the number not to exceed 10 copies of each map except by special arrangement), the minimum classification for each map if run without the NIS references, and any special restrictions concerning additional runs and distribution by CIA for other than NIS purposes.

2. MANUSCRIPT

NIS manuscript is submitted in 5 complete assembled copies. Each of the 5 assembled sets of manuscript includes in sequence 1) title page, 2) table of contents, 3) text, 4) tables, 5) caption list, and 6) list of any border information.

Pagination begins with the first page of text of each Section and is consecutive throughout the manuscript (including each page of the tables, which follow the text in sequence of figure numbers). Pagination is by other means than a numbering machine, which is reserved for use in D/B processing.

Manuscript with more than nominal alterations is not acceptable. Text or tabular material photostatted or similarly reproduced from printed or other material must be in positive print form and legible in approximately typewriter elite size.

The supporting items, typed triple space, are as follows:

TITLE PAGE, containing Chapter or Supplement number and title, Section number and title, and the statement: "This is a preliminary draft of Section _____, NIS _____. It has not been finally

edited or reconciled with other NIS sections and should not be reproduced. This Section has been approved for use in the NIS by the (*agency*), (*month*, *year*). This is the uniform date for the entire section and will appear on each page of the published section."

TABLE OF CONTENTS for each section, including all headings and subheads used in text according to the style given in "Text specifications." For Supplements, or when entire chapters are submitted, a separate table of contents extending through No. 2 heads of all sections also is included. Each section table of contents is immediately followed by a LIST OF FIGURES which lists in sequence all figures with the following details for each: Figure number as determined by sequence in tentative placement, category identification (Table, Photo, Aerial, Chart, Diagram, Plan, Map), and the caption as it appears with the figure or in appropriate short-title form. This LIST OF FIGURES is immediately followed by a *contributor statement*, as approved by the NIS Committee, showing the agency or agencies contributing to and responsible for preparation of the material.

CAPTION LIST (required for typesetting of all captions). Figure numbers for all tables and graphics are listed in sequence with exact wording of the caption as attached to the figure. When applicable, the list of captions is followed by a *border information list*, listing in sequence each insert map figure number with exact wording of the border information as specified in "Graphic specifications," and indicating which maps have apron material.

3. GRAPHIC MATERIAL

Graphic material, including photographs, is assembled separately from manuscript, in 4 complete sets with each item in sequence. The 4 copies of each item consist of an original and 3 copies of all black and white material, and 4 color proofs for multicolor graphic material. The original plates of multicolor maps are retained by contributor until receipt of memorandum from D/B. These originals are then forwarded as directed by D/B for final reproduction.

B. Text specifications**1. TYPING OF TEXT**

Text is submitted in 5 copies, typed on one side only, with the original on substantial 8 x 12½ bond paper. Duplicating process may be used if submitted copies are thoroughly legible. Text is typed triple space. All paragraphs without headings begin with 5-space indent. Normal capitalization is used throughout (including headings), without use of continuous capitalization or of underlining except for foreign or other terms to be italicized. The last word of a typed line is always a complete word, avoiding ending any line with a hyphen. Manuscript conforms to the sample pages, with margins as shown. Each manuscript page, as shown, includes in top margin the name of the agency of primary responsibility, date (manuscript completion date, for processing control purposes only), classification, NIS number and section number. The first page of text includes the section number and title. Text pages are numbered consecutively within each section (not using a numbering machine, which is reserved for D/B processing).

2. TEXT HEADINGS

Headings used in NIS text material are as follows:

	<i>(Grade of head, not typed in ms.)</i>
II. Military Geography	(Chapter title)
22. Coasts and Landing Beaches	(Section title)
A. General	(No. 1)
1. Coasts	(No. 2)
a. Northern peninsula — Text follows	(No. 3)
(1) Williams Bay — Text follows	(No. 4)
(a) Vicinity of Port Smith — Text	(No. 5)
1) Seaward Approaches — Text	(No. 6)

Chapter and section titles are centered. No. 1 heads are typed flush with left margin of text; inferior heads are successively indented 5 typewriter spaces. No. 1 and No. 2 heads stand alone; text begins on next line with indentation of 5 spaces and thereafter flush left. Remaining heads each end with space, two hyphens, space; text follows immediately on same line, with succeeding lines beginning flush with left text margin.

Each standard heading includes a title in addition to letter or number. Titles are as brief as feasible. In No. 1 through No. 5 heads, common nouns are not capitalized. No. 6 heads are initial caps except for prepositions, articles, etc.

Headings may stand alone when immediately followed by the next grade of head. For certain material (as in Coasts and Landing Beaches), a heading may be followed on the next line or lines by coordinates, hydrographic chart references, etc. No. 5 and No. 6 headings may be modified when used to introduce a series of similar subsidiary

topics (such as a series of brief descriptive paragraphs on smaller ports).

Numbers used to itemize a series of items within text carry a single parenthesis, e.g., 1).

3. REFERENCES TO FIGURES AND TEXT

Figures (including both tables and graphic material) must be adequately referred to in the related text, using figure numbers assigned by the contributor. Reference may be integral in a sentence, "... as shown in FIGURE 32-16 ...", or parenthetical, "... (FIGURES 42-3 through 42-6) ...". It is often desirable to use the reference flexibly to differentiate types of figures, e.g., "... tabulated in FIGURE 42-7 ..." or "... shown on the map, FIGURE 42-8 ...". Statements such as "... in the following table ..." or "... in the table above ..." are undesirable because the relationship may not be retained in printing. Because figure numbering is subject to change in publication or maintenance, reference to tables or graphic material in other sections or chapters is by abbreviated caption, type of material and section number in which it appears, e.g., "(see population density map, SECTION 41)".

Tentative placement within text of tables and appropriate graphic items (e.g., line cuts) is indicated by large carets with figure numbers on the right margin of text pages (see sample pages). Each figure is caretted only once. Figures expected to follow printed text, such as half-tone illustrations and fold-in maps, are itemized after the last line of manuscript text.

Because subsection numbering and titles are subject to change in publication or maintenance, cross references are made to the highest order of text topic which will adequately indicate where the referenced material will be found. Within sections and especially within lengthy sections, however, references to subsections may be quite detailed if desirable. Another section of the same chapter is referred to by "... (SECTION 81, this chapter) ..." or "... (See section on Ground Forces) ...". Reference to a section of another chapter is as follows: "... (CHAPTER III, SECTION 31) ..." or "... (See Railway) ...".

The words Chapter, Section, and Figure, when followed by identifying number are typed in capitals and lower case.

4. QUOTATIONS AND EXTRACT MATTER

Quotations up to approximately 3 typewritten lines are included in text within quotation marks. Longer quotations, and subordinate material likewise to be printed as "extract" in smaller type, are without quotation marks, indented 5 spaces for all lines and typed double space.

Sanitized - Approved For Release : CIA-RDP79-01055A000200080001-0

Left Margin 1 1/4"	ARMY-January 1948	(CLASSIFICATION)	NIS 21 Sec-38	Top Margin 1 1/4"
	38. Telecommunications			Right Margin 1"
12 1/2"	A. General			
	During the Japanese occupation telecommunication facilities in Manchuria were rapidly expanded. New radio stations were...			
12 1/2"	B. Domestic facilities			
	1. General			
12 1/2"	Prior to 1933, telecommunication facilities in Manchuria were under the control of several agencies and companies licensed by the Chinese, Japanese, and Russian governments.			
	2. Telephone			
12 1/2"	a. Location of routes of lines -- Telephone land lines form a rather close pattern around Mukden, Chang-ch'un (Hsinking), and Harbin, and radiate to all parts of the country (Figure 38-1)..			
	b. Type of construction -- Construction was completed for an underground 28-pair nonloaded telephone cable between Mukden and Antung in 1937 (Figure 38-2). In December 1942....			
12 1/2"	3. Telegraph and cable			
	a. Location of routes of lines -- Most of the routes are parallel to railways and highways; lines are also built along the valleys. Practically all the major circuits and most of the other..			
Bottom Margin 1 1/4"	(page number) (CLASSIFICATION)			
8"				

Fig.
38-1Fig.
38-2

Sanitized - Approved For Release : CIA-RDP79-01055A000200080001-0

Sanitized - Approved For Release : CIA-RDP79-01055A000200080001-0

ARMY-January 1948

(CLASSIFICATION)

NIS 21
Sec-38Top
Margin
1 1/4"Right
Margin
1"Left
Margin
1 1/4"

The offices and agencies that provided telegraph service in the

China area in 1939 were:

Telegraph and telephone service	244
Telephone stations	232
Telegraph agencies	403
Wireless agencies	62
Total	941

b. Type of construction -- In general, construction of..

4. Radio

a. Radio communications stations -- From 1933 to 1945 the major radio communications stations were operated by....*

*Itemized information for the period 1940 to 1945 is almost entirely based on captured Japanese documents, but the significant totals are confirmed by U.S. official reports.

b. Broadcasting -- There are several of the more powerful broadcasting stations listed in Figure 38-3.

Fig.
38-3

(1) Number of installations -- The number of these installations is considerably smaller than the total given by the 1939 telegraph offices and agencies' tabulations. It is now believed that, even with full allowance for the new facilities only a few have short-wave transmitters. There is very little information about...

(page number)
(CLASSIFICATION)Bottom
Margin
1 1/4"

8"

Sanitized - Approved For Release : CIA-RDP79-01055A000200080001-0

JUNE 1951

EDITORIAL INSTRUCTIONS

~~CONFIDENTIAL~~

5. SAMPLE PAGES

The accompanying two pages are sample pages of text manuscript for the guidance of typists.

6. FOOTNOTES

Footnotes to text matter are kept to a minimum. When footnotes are considered necessary, up to 3 asterisks per page may be used. In manuscript the footnote is inserted on the line following the reference, separated from the text by solid lines above and below; the footnote begins indented 5 spaces from left margin, and is typed double space (see sample pages).

7. REFERENCE TO SOURCES

References to sources are confined as much as possible to the topic Comments on Principal Sources, where the evaluative discussion normally will be followed by an alphabetical listing of principal sources to which consecutive numbers are assigned. If sources are grouped by subject categories, they are numbered consecutively rather than by successive groups. In text, and in both text and figure footnotes, this facilitates brief reference, e.g., ". . . , based on *Source 1* estimates, . . ." or ". . . (*Source 1*) . . ." When only a few principal sources are identified and are not assigned source numbers in the Comments subsection, text or footnote reference thereto is as brief as feasible. A source cited in text but not included in Comments on Principal Sources may be described in necessary detail but as briefly as possible. Author, title of source, and date normally is sufficient, typed in capitals and lower case set off from text by parentheses.

In the numbered listing of principal sources, each item is typed double space and is continuous in the following order and typewriter style:

Author, authors, editor or agency; last name first, capital and lower case, period. Title of book or other separate publication; capitals and lower case, underlined, followed within parentheses by capitals and lower case translation if required, period. Title of article from periodical in quotes, capitals and lower case, comma; followed by name of periodical, underlined, comma; edition, series, part, volume, number, selected pages, year of periodical as necessary, separated by commas in that order, with capital only at beginning of series of items, abbreviated as ed., ser., pt., vol., no., p., period. Arabic numerals used throughout except Roman after pt. Place of publication in capitals and lower case, followed by colon and publishing agency if given, otherwise period. Date, period; n.d. if not dated, period. Total pages if desired. Classification in parentheses, capital and lower case, without period.

When several works by the same author or agency are listed, the author's name is not repeated but is replaced by dashes in subsequent listings.

C. Tabular specifications

1. TABULATIONS

Relatively simple tabular presentations, generally with no stubs, less than 3 columns of data, and not requiring more than a printed column width, are treated as tabulations. Tabulations are incorporated in text manuscript without figure number or title (see sample pages). They are typed double space, with no continuous capitalization or underlining.

2. TABLES

More complex tabular presentations, generally with stub and 3 or more vertical columns of data, are treated as tables. Each table has a descriptive title (caption) preceded by a figure number. Each table is constructed to stand as an entity, because of possible separation from text in publication or use.

3. TYPING OF TABLES

Each table is typed in 5 copies, on one side only, original on substantial bond paper. Duplicating process may be used if submitted copies are thoroughly checked for legibility. Tables are typed double space, with no continuous capitals or underlining in caption, stubs, column headings, or data entries. Tables are typed on 8 x 12½ bond paper whenever practicable. For more extensive presentations, larger paper may be used, if possible retaining the 12½ inch vertical dimension. Several separate 8 x 12½ pages may be used to continue a table. When more than one page is used to present a table or when there is significant relationship between columns in separate tables, in typing it is important to maintain alignment and space relationship of columns on all pages. Each page includes in the margin, as in text pages, the name of the agency of primary responsibility, date, classification, NIS number and section number.

4. TABLE TITLES AND FIGURE NUMBERS

Table titles (captions) are as brief as possible consistent with adequate indication of table content. Date or dates are included in the title unless table content is generalized or in itself provides adequate date information. The area or political name is incorporated when feasible, in adjective form ("Value of French imports, 1945-1950") or in noun form after substance of caption ("Land use, France, 1950").

The figure number which precedes each table title is comprised of the section number followed by a hyphen and the serial number of the table in

~~CONFIDENTIAL~~

the sequence of all figures (including all tables and graphic items) within a section, according to caretted location in the submitted manuscript.

5. TABLE STUBS AND COLUMN HEADINGS

Stubs (horizontal descriptive entries normally to the left of vertical columns of data) and column headings are carefully worded and coordinated. Proper selection and description of categories minimizes footnotes and exceptions which require explanation.

In general, the heading at the top of a column covers all material presented in the column without insertion of additional headings farther down the column. The same applies to side heads and lines of data. Where intermediate headings seem necessary, the material generally is presented as separate tables. However, related categories of items (such as apply to various weapons) may be usefully combined in a single table by making column headings more comprehensive and using sub-headings in columns and/or indicating a general change in category. Preliminary consultation with D/B on such matters is advisable.

6. TABLE FOOTNOTES AND SOURCE REFERENCES

Footnotes to tables are indicated by up to 3 asterisks and thereafter by up to 3 daggers (the typewriter symbol # is used for a dagger). These symbols are placed at the left of numerical column data, and at the right of headings, stubs, mixed or reading column data. Footnotes generally are typed double space, under the table, starting indented five spaces from left margin of table. The number of footnotes to tables is minimized by incorporation of the material into related text when feasible, by careful phrasing of stubs and headings, by consolidation in a reduced number of footnotes, or by consolidation in a single NOTE carried as a footnote without symbol.

When source reference or references are considered necessary and apply for a table as a whole, they are indicated by "Data from Source 13 . . ." beginning at the left text margin and typed two spaces below a line at the bottom of the table proper. If a NOTE item is used it precedes the conventional abbreviation *na* and explanation, if used (see conventional entries below), which in turn precedes any symbol footnotes. An entire table taken verbatim from a source (sometimes as the only available data, and not necessarily fully accepted by the contributor), is so indicated in related text, by explanation within the table, or by footnote; in such cases it is generally desirable, so far as feasible, to follow the detailed format of the original material.

7. CONVENTIONAL ENTRIES

To avoid blank spaces in columns of data, the following conventional entries are made as appropriate in table columns:

ENTRY	MEANING
...	not applicable; no footnote used
<i>na</i>	data not available, inadequate data, etc; <i>n</i> and <i>a</i> separated and underlined; until conventional is well established, explained as "Data not available", etc., in footnote
0	indicates zero quantity or reading in columns of uniform data such as weather statistics; no footnote used
<i>none</i>	used instead of 0 when data are not uniform, e.g., to indicate known lack of production of a significant commodity; underline; no footnote used
<i>insig</i>	quantity too insignificant to record; underline; no footnote used

When exceptional items in a column are estimated they are preceded by *est* in underlined lower case, unless symbol and footnote are preferable because of an otherwise appreciably narrower column or exceptional items can be feasibly covered in other footnotes.

Ditto marks are not used in tables. For this purpose *do* in underlined lower case is used. Generally, identical entries in figure columns are repeated. It is likewise desirable to repeat word entries which have significance.

8. STATISTICAL TOTALS

When *na* or *insig* are included with vertical or horizontal data entries for which a total is given that only moderately exceeds the sum of the specific entries, no footnote explanation may be required. However, when the total is exactly the sum of the specific figures, generally it is advisable to indicate that *na* or similar items are not reflected in the total, e.g., "* Totals are of known data" or "*approx.*" When totals are not identical with the sum of specific entries, because of rounding or different sources, indicate by note, e.g., "(Tonnage) figures rounded to nearest (thousand) are not additive".

9. TABLE CONSTRUCTION

Optimum clarity and usefulness require the careful construction of all tables in terms of the nature and purpose of the material and the characteristics of the NIS format.

Column headings normally are typed and printed horizontally. They may be vertical when heading narrow columns of data or generally to facilitate publishing a table in minimum width. Superior or consolidating headings are centered over the appropriate individual column headings.

To avoid repetition of units of measurement after items of latitude, longitude, time, distance, weight, etc., units of measurement (abbreviated as appropriate) are put at the head of column, or centered over appropriate columns. Units common to an entire table (e.g., thousands of metric tons, or percentage of population) are placed in parentheses beneath the table title.

It is desirable, so far as practicable, for a series of tables dealing with common or closely related topics to be expressed in a uniform order of magnitude of units of measurement, e.g., all in thousands of tons or hundreds of tons.

Entries in all columns align horizontally with top line of the corresponding stub.

Vertical columns of figures are aligned on the decimal point, dissimilar figures are centered in the column, and zeros precede the decimal in numbers of less than 1. Examples of various figure items are:

1500
0.15
15.5 - 17.0
insig
30 (daily)

Generally it is not desirable to carry a column in which there are no entries. Use of a column for isolated entries may be avoided by carrying the entries in a "Remarks" column or by consolidation in an explanatory note to the table.

Tables generally should be constructed to avoid extensive use of full-length lines or rules between columns and particularly between horizontal entries. Lines or boxes around column headings preferably are omitted by contributors unless format is well established.

Although contributors are not required to conform to printing requirements when constructing tables, general consideration of such requirements facilitates publication of table material. A printed NIS single-column width accommodates approximately 55 units of characters or spaces. A two-column page width takes approximately 115 units. A two-page spread takes approximately 230 characters or spaces. Two-page spreads tend to present page make-up problems in publication, including separation of tables from related text. Tables which must be viewed from the side of the page, and extended tables on fold-in inserts, generally are not desirable and are used only by arrangement with D/B. In constructing tables for normal column or page-width publication, space allowance must be made for column headings which may be wider than figure entries in columns, and for stubs. When it is apparent that the maximum horizontal lines (allowing for column entries, column headings, stubs, footnote symbols, and adequate space

between columns) will occupy more than the approximate number of spaces available but will not utilize more than a nominal additional width, rearrangement of the table warrants consideration. Vertical printing of heads is one device. When the number of columns exceeds the number of stub entries, the lay-out often may be reversed to make a longer but narrower table. When tables present problems not previously encountered, contributors are requested to consult D/B before final typing.

D. Graphic specifications

1. GENERAL

All graphic materials, such as photographs, maps, charts, graphs, and sketches, regardless of size, are (in addition to numbered tables) designated as figures. Each figure carries a separate figure number comprised of the section number followed by hyphen and serial number of the figure in the sequence of all figures within the section.

The page size of the printed NIS, including binding and other margins, is $9\frac{1}{4}$ " by $12\frac{1}{8}$ ". The type is set in two $3\frac{1}{2}$ " columns spaced $\frac{1}{4}$ " apart. Figures of column width are printed $3\frac{1}{2}$ " wide, and 2-column figures are $7\frac{1}{4}$ " wide. The maximum height of such figures including space for caption is $9\frac{3}{4}$ ".

All graphic items larger than page size are treated as fold-in inserts. The maximum paper size used for NIS inserts is $23\frac{1}{4}$ " V x $39\frac{3}{4}$ " H. The horizontal dimension normally includes a $9\frac{1}{4}$ " apron.

Figures are prepared to fit NIS indicated dimensions. Care is required in laying out correct proportions and in selecting sizes of symbols, patterns, lines, and lettering to allow for reduction commensurate with that permitted by other features of the figure. When a specific amount of reduction is desired, it is so marked outside the border. Otherwise, the amount of reduction will be decided by D/B.

All charts, graphs, maps and other graphic material to be printed with text are constructed as black and white linecut figures of page size or less. Photographs and other figures requiring halftone reproduction normally will be published on coated paper inserts of page size (excepting large panoramas or mosaics which may be run as fold-in inserts), grouped immediately following text and table manuscript of each section. Multicolor graphics normally will be inserted at the end of each section.

All figures, except insert maps, are accompanied by captions (in lower case and normal word capitalization) which are carefully worded to be briefly but adequately descriptive. The first line of the caption carries the figure number followed by identification of the subject or brief descriptive phrase;

succeeding lines add appropriate amplification, including direction of view and indication of the date (or absence thereof, by "Date unknown") of photographs. Captions are firmly attached to figures, affixed to permit reading of the caption while viewing the figure but not obscuring the figure image. Captions must be legible but need not be drafted since all captions are set in type.

Charts or graphs do not carry titles or caption material (as distinct from explanatory legend material) within the figure image. In the case of a specially constructed chart or graph, source and date of information may be drafted within the figure.

All insert maps carry the title, legend, source and date of source, and other essential caption information drafted within the title box or neatline. Border information, indicated outside the map border in non-photographic blue but not drafted because it will be set in type, is as follows: Upper left corner—agency responsible for map content, and date to be carried by the section as a unit; center top—NIS Area number; upper right corner—classification; lower left corner—file number and agency responsible for actual map construction (unless the latter is identical with material in upper left corner); center bottom—abbreviated map title; lower right corner—figure number.

It is not necessary that all maps or photographs be oriented with north at the top, but the position of north is clearly indicated by means of a north arrow, coordinates, or caption. Names, symbols, and similar details of figures are oriented for reading from the bottom of the page. In exceptions where figures must be viewed from the side of the page, details of the figure are oriented for reading from the right-hand side of the page.

Printed "stick-up" is preferred for symbols and lettering. However, Leroy lettering is permissible. Freehand lettering and symbols are to be avoided except in such instances as the inclusion of an existent, printed map or sketch.

It is frequently desirable for graphic material, such as large-scale aerials of airfields, to be accompanied by small-scale line-cut orientation or location maps.

2. PHOTOGRAPHS

Only clear and distinct photographs are acceptable, and original prints are supplied insofar as possible. Except where the original is unwieldy, prints are supplied at the same scale as originals, including suggested cropping to be undertaken in D/B processing.

High-altitude aerial photographs carry a north arrow and bar scale drafted on the face of the print. When a photograph originally has foreign annota-

tions on the face of the photograph, the annotations are retained and accompanied by translation or explanation. Where feasible, the translation is added to the face of the print in the form of a key or legend; where space is not available or a key or legend is not adequately descriptive, the translation or explanation appears in the caption or on a separate typed sheet attached to each copy of the print.

Instructions for selection and preparation of photographs are set forth in NIS supplementary instructions.

3. MAPS

All NIS maps are carefully selected and constructed in terms of the purpose and subject material of a map or plan, content and positional integration with text, suitability of color or other differentiation, and all feasible uniformity in layout, lettering, and other drafted elements.

All maps have a neatline and border, a legend centered under the map title, a bar scale centered beneath the legend, and the classification centered beneath the scale. Legends clearly define all symbols not self-explanatory or generally understood from common usage. A direction indication, either coordinates or a north arrow, is included. Maps prepared as a series (e.g., port and town plans) have consistent treatment throughout in type style, zipatone patterns, title and legend layout. Non-varying plastic (e.g., dyrite, vinylite) is preferable for the construction of color plates, to facilitate accurate registry in printing.

A map designed as a black and white line drawing, page size or less, is preferable for many NIS purposes because it can be printed adjacent to the related text. When information cannot be adequately presented in black and white, limited use of one additional color for such maps is possible, upon consultation with D/B.

A Standard Base Map for each NIS Area is prepared and distributed by Geographic Division, (D/G), CIA in the following forms: Black and white and composite color copies on paper; composite black line and black line copies of each color separation plate on plastic (dyrite). Specific instructions concerning reduction, sizes, etc., are distributed with the base map for each NIS Area.

Contributors are responsible for drafting their own overlays, which are keyed to the base plates of NIS Standard Base Maps.

In addition to the Standard Base Map a small-scale Page Size Base Map is prepared for each NIS Area. This map is available to contributors in black-line and non-photographic blue, paper copies. Black-line maps or color overlays are prepared by drafting directly on these bases.

JUNE 1951

EDITORIAL INSTRUCTIONS

~~CONFIDENTIAL~~

For purposes where base maps are not applicable (such as port plans), contributors are responsible for compiling and constructing their own maps. Contributors lacking necessary cartographic facilities should consult D/B.

Fold-in maps are printed with a page-size apron, to permit full view of the map as the text is read. This apron can be used for printing information additional to that contained in the legend, such as lists of installations or regions. Such information is submitted on a separate typewritten sheet, a copy of which is attached to each copy of the map. Printed material is not carried on the back of a map.

E. General

1. NIS SUPPLEMENT SPECIFICATIONS

Preparation of text and graphic material for NIS Supplements generally conforms to the indicated procedures for other NIS material, with such modifications as are developed to meet the requirements of the Supplements.

2. CLASSIFICATION AND CONTROL

NIS textual material is classified independently by section. All pages of each section uniformly carry the highest classification of material in the section. All material, however, carries at least a RESTRICTED classification. Tables of contents, caption lists, all tables, and all graphics intended to be printed within text, carry the uniform section classification and are so stamped when submitted. Insert maps or other insert graphic items (including photographs) are not governed by the over-all classification, but are individually classified as appropriate.

The agency of primary responsibility is required to indicate any control aspects of submitted material.

All Comments on Principal Sources for all NIS are controlled for "U.S. Officials Only". Each page of that portion of manuscript is so stamped, top and bottom. The control for Comments on Principal Sources as such does not govern for related NIS material and need not be specified in the letter of transmittal.

Certain NIS Areas, as approved and specifically listed by the NIS Committee, are controlled for ~~CONFIDENTIAL~~. Certain other NIS Areas, as approved and specifically listed by the NIS Committee, are restricted by control for "U.S. Officials Only". All NIS material relating to such Areas, regardless of the content of the material, is correspondingly controlled. Each page of manuscript and each unit of graphic material is appropriately stamped, top and bottom. All such material delivered to D/B carries a cover sheet

specifying control, and the control requirements also are indicated in the letter of transmittal.

When any element or portions of NIS material (other than Comments on Principal Sources) are controlled for reasons other than the approved control character of the Area, the entire section involved is controlled. Each page of manuscript and each unit of graphic material is appropriately stamped, top and bottom. All such material delivered to D/B carries a cover sheet specifying control, and the nature of and occasion for the control requirements are indicated in the letter of transmittal.

3. TREATMENT OF NAMES

Geographic names used in the NIS are those approved by the United States Board on Geographic Names (BGN). Preliminary gazetteers are issued to contributors for use in the preparation of text and graphic materials. Pending publication of a pertinent gazetteer, or in the case of names not covered by a published gazetteer, lists of names are submitted according to NIS supplementary instructions.

English conventional names are used insofar as they are approved by BGN. The approved native name is added in parentheses the first time the conventional name is used in a section, and thereafter as desirable for clarity. It is desirable to use the native name in parentheses after the conventional name on maps whenever practicable.

Approved native names are used where conventional English names are not provided. Translation of generic parts of native names (except when the meaning is apparent) is given, in parentheses or in running text if feasible, the first time a generic appears in any segment of text. As a reader aid, English generics may be interspersed in text.

All terms referring to man-made features, such as Small Boat Harbor, are in English. Military regions or other regions arbitrarily designated for convenience in presentation are in English and are not required to be identical with BGN approved versions.

Consistency in the use of the conventional or the native name for the same feature is maintained throughout each chapter.

In lists of towns and cities, coordinates are given for each of two or more places having identical names.

4. TECHNICAL TERMINOLOGY

When scientific names are appropriately used in the interest of accuracy, if possible they are preceded by a common name or common name generic; e.g., the colon bacillus (*Escherichia coli*), malaria mosquitoes (*Anopheles maculipennis*, A.

~~CONFIDENTIAL~~

hyracanus). The scientific names are enclosed in parentheses and marked for italics in every case. In a paragraph discussing malaria mosquitoes, however, italicized scientific names may be used without a preceding common name or generic. Scientific family names (names ending in -idae, as Stomatidae) are capitalized but not italicized.

Special-use terms, such as names of military regions, are capitalized (e.g., the Kazakh Hill Country) to clearly maintain identity.

5. STATISTICAL DATA

Statistical data normally are expressed either in U.S. units of measure or in the metric system, and are consistent within a section or the largest NIS unit feasible, except to conform with common usage, as in discussing 75 mm and 3" guns. All contributions, should clearly indicate what system is used, in tables as well as text. When different measurement systems unavoidably appear together in text (e.g., statute and nautical miles) they must be clearly differentiated. In the case of areas where available maps or charts use varying measurement systems, the text is expressed in U.S. units with metric conversion following in parentheses, and accompanying maps using extensive metric annotations in their original form carry a conversion table. Both U.S. and other measure-

ments may be given, as in the case of a table, when contributing to utility.

Measurements are expressed in terms consistent with the inherent or required degree of accuracy, (e.g., 2,340 miles of coast, 16' 6¼" bridge clearance). Conversions are exact when appropriate; a rounded original figure is not converted into an inconsistently exact figure; rounded conversions may be used with a modifying "about" or "approximate". Units of measurement with varying meanings are clearly defined, e.g., statute miles or nautical miles, short tons or long tons. Both quantity and value may be given when useful for indicating relative importance. In financial data, conversion factors with date are included.

6. RETURN OF MATERIAL

Detailed procedures governing the return of submitted material are established in NIS supplementary instructions.

7. EDITORIAL STYLE

Development of style for all forms of NIS content is a continuing and coordinated result of contributor and D/B processing of the various types of material. For all matters of style not so developed, and not indicated by specific D/B instructions, the current Government Printing Office Style Manual governs.

~~CONFIDENTIAL~~

Security Information

NATIONAL INTELLIGENCE SURVEY

STANDARD INSTRUCTIONS

CHAPTER VII

SCIENTIFIC

Section 70 Introduction
Section 71 Electronics
Section 72 Air, Ground, and Naval Weapons
Section 73 Atomic Energy
Section 74 Biological Warfare (BW)
Section 75 Chemical Warfare (CW)
Section 76 Miscellaneous

CENTRAL INTELLIGENCE AGENCY
Washington, D. C.

~~CONFIDENTIAL~~

JUNE 1951

~~CONFIDENTIAL~~

Chapter VII - Scientific

OUTLINE

SECTION 70. INTRODUCTION

- A. Development and evaluation of scientific effort
 - 1. General structure of the scientific effort
 - 2. Current trends
 - 3. Evaluation
- B. Organization for research
 - 1. Governmental organization
 - 2. Armed forces
 - 3. Academies and higher educational institutions
 - 4. Privately-owned research organizations
- C. Education, training and procurement of scientific personnel
- D. Appropriations
 - 1. Public and private funds allotted for research and development
 - 2. Prizes, awards, and scholarships
- E. Comments on principal sources

SECTION 71. ELECTRONICS

- A. General
- B. Radio communications
- C. Communications equipment other than radio
- D. Navigation aids
- E. Radar
- F. Infrared
- G. Acoustics
- H. Vacuum tubes
- I. Components and special devices
- J. Electronic countermeasures
- K. Personalities
- L. Comments on principal sources

SECTION 72. Air, Ground, and Naval Weapons

- A. General

- B. Aircraft and aircraft armament
 - 1. General
 - 2. Airframes
 - 3. Aircraft propulsion
 - 4. Aircraft ordnance
 - 5. Other aircraft equipment
 - 6. Personalities
- C. Guided missiles
 - 1. General
 - 2. Guidance and control
 - 3. Propulsion
 - 4. Aerodynamics and structure
 - 5. Warheads and fuzing
 - 6. Organization for research and development
 - 7. Installations
 - 8. Personalities
- D. Antiaircraft weapons and equipment
 - 1. General
 - 2. Guns and ammunition
 - 3. Unguided rockets
 - 4. Fire control equipment
 - 5. Personalities
- E. Ground weapons and equipment
 - 1. General
 - 2. Combat vehicles
 - 3. General purpose vehicles
 - 4. Artillery
 - 5. Infantry weapons
 - 6. Mines and mine clearance equipment
 - 7. Stream crossing equipment
 - 8. Special arctic equipment
 - 9. Other
 - 10. Personalities
- F. Naval weapons
 - 1. General
 - 2. Hull designs
 - 3. Ship propulsion
 - 4. Underwater ordnance
 - 5. Surface ordnance
 - 6. Personalities
- G. Comments on principal sources

~~CONFIDENTIAL~~

CHAPTER VII

JUNE 1951

SECTION 73. ATOMIC ENERGY

- A. General
- B. Organization
- C. Appropriations
- D. Scientific training program
- E. Personalities
- F. Research facilities
- G. Supporting industrial firms
- H. Sources and production of basic materials
- I. Production of reactive materials
- J. Applications
- K. Comments on principal sources

SECTION 74. BIOLOGICAL WARFARE (BW)

- A. General
- B. Capabilities, organization and policies for research and development

- C. Research, development and field testing

- D. Installations
- E. Personalities
- F. Comments on principal sources

SECTION 75. CHEMICAL WARFARE (CW)

- A. General
- B. Capabilities, organization and policies for research and development
- C. Research, development and field testing
- D. Installations
- E. Personalities
- F. Comments on principal sources

SECTION 76. MISCELLANEOUS

~~CONFIDENTIAL~~

OUTLINE GUIDE

The following outline guide indicates substance and general arrangement. In preparation and typing of manuscript, D/B Editorial Instructions are to be followed in detail.

The following is intended to serve as a general instruction for the production of CHAPTER VII. Relevant features contained herein, modified to conform with the area being covered, shall be included with the finished CHAPTER VII to serve as a guide for the reader.

CHAPTER VII (Scientific) is devoted to the relatively permanent and fundamental aspects of scientific research and development in the subject area. Material contained in the chapter should be adequate to provide key scientific intelligence analysts with a basis for preparing estimates for such bodies as the National Security Council, the Research and Development Board, the Joint Chiefs of Staff, and the National Security Resources Board, and for departmental planning components.

Since science enters strongly into present-day military planning connected with the national security, CHAPTER VII places emphasis on the military aspect of scientific research and development. It is recognized, however, that much of the advance in military technology generates from non-military laboratories and that the entire scientific base of a country contributes to a certain extent to the military potential of the country. CHAPTER VII therefore should also cover subjects which have no direct military application but which are of significance.

The particular area covered by CHAPTER VII, of course, influences the volume and scope of the textual presentation. For example, treatment concerning the U.S.S.R. is only complete when full coverage is provided for salient contributions of U.S.S.R. satellite nations.

A clearer understanding of the purpose of CHAPTER VII is provided by consideration of its relationship with certain other chapters of the over-all NIS presentation. Generally speaking, CHAPTER VII covers scientific research and development through the prototype stage of materiel, whereas CHAPTER VI (ECONOMIC) deals with the manufacture of materiel and CHAPTER VIII (ARMED FORCES) with the quality, quantity, and characteristics thereof. CHAPTER IV (SOCIOLOGICAL) deals with the educational system as a whole and with the educational level of the population whereas CHAPTER VII deals with educational institutions and learned societies

which are engaging in scientific research. Since it is recognized that essentially all aspects of atomic energy and biological warfare, including the manufacture and capabilities thereof, fall within the field of scientific intelligence, all such aspects should be respectively treated in SECTIONS 73 (ATOMIC ENERGY) and 74 (BIOLOGICAL WARFARE) and no aspect is treated in CHAPTER VI or CHAPTER VIII. Manufacture of chemical warfare material is, however, treated in CHAPTER VI and the quality, quantity, and characteristics of such materiel in CHAPTER VIII.

Because the over-all field of scientific research and development is not static, the line of demarcation between basic and current scientific intelligence is not always clear cut. This line may be particularly hazy in the subjects of research and development programs as such programs, if handled with normal efficiency and force, are likely, in their progress, to generate from day to day new facts of interest. It is the intent that CHAPTER VII provide comprehensive coverage of significant research and development programs. However, that coverage should be limited to the origin, objectives, history, general progress and an indication of basic trends (avoid estimates and opinions which should be reserved for other types of intelligence production) of the programs as of the time of writing. Also, it must be recognized that the inclusion of a mass of ephemeral, as opposed to fundamental, details may require too frequent revision of the chapter and may tend to confuse or even mislead the reader. In view of the foregoing, good judgment must be exercised to determine which details are to be included and which are to be excluded. As a matter of fact, however, the very nature of scientific research and development is such as almost uniformly to require protection of them by the most nearly impervious counter-intelligence screen that the country in which they are being conducted is able to erect. Hence, the amount of detail concerning them is more likely to be little than great. Therefore, in the preparation of the text frequent acute problems of selectivity are not anticipated and, in any event, it is desired to err on the side of including too many details rather than too few.

Section 70. Introduction

A. Development and evaluation of scientific effort

1. GENERAL STRUCTURE OF THE SCIENTIFIC EFFORT

Cover the history and tradition of scientific research and development in the subject area. Refer to the position of science and show clearly the governmental attitude toward scientific research. Include references to social and economic positions enjoyed by scientists in the subject area. Evaluate briefly scientific scholarship. (Individuals should be covered in appropriate Section.)

2. CURRENT TRENDS

State the field or fields of endeavor in which notably outstanding work is done, or is likely to be done. Outline capabilities and potentialities of converting research and development in case of war. Give outstanding contributions to scientific theory and to applied research (reference other sections of this Chapter).

3. EVALUATION

Present an evaluation of scientific scholarship and the levels of achievement in pure and applied science. Cover the various factors and aspects of the scientific effort in terms of their strengthening or weakening this effort. Include considerations relating to scientific organization, political control, scientific philosophy, technical resources, etc.

B. Organization for research

Provide identification of the main organizations and types of organizations; their interrelationship and coordination; whether planned or spontaneous. Present the relative significance of each organization or group of organizations of a given type. Indicate how research projects originate and are sustained. Refer to cooperation and the dissemination of ideas. Cover planning.

1. GOVERNMENTAL ORGANIZATION

Cover the structure for controlling, supervising, or advising scientific research and development outside the Armed Forces.

2. ARMED FORCES

Describe research organizations within the Armed Forces and research organizations controlled or supervised by or for the Armed Forces.

3. ACADEMIES AND HIGHER EDUCATIONAL INSTITUTIONS

Describe organizations that are actively engaged in participating or fostering research, with signifi-

cance and relation to the governmental organization. (Mention only higher educational establishments which have outstanding reputations in scientific fields.) Cover briefly outstanding types of research accomplishment. There should be extensive cross-referencing to CHAPTER IV, where the basic education system is covered. Close coordination should be established with the Department of State, which is the agency responsible for CHAPTER IV.

4. PRIVATELY-OWNED RESEARCH ORGANIZATIONS

Describe industrial organizations engaged in research, the type, caliber and significance of this research. Cover the relationship with government organization, if evident. Include foreign affiliations, if any. There should be extensive cross-referencing to CHAPTER VI and close liaison established with the Department of State.

C. Education, training and procurement of scientific personnel

Discuss the training of scientists, particularly in the higher schools and in postgraduate work. Make an attempt to evaluate academic standards.

D. Appropriations

1. PUBLIC AND PRIVATE FUNDS ALLOTTED FOR RESEARCH AND DEVELOPMENT

Refer to public and private funds allotted for research and development, indicating how funds are allotted among various fields, organizations, and/or scientists.

2. PRIZES, AWARDS, AND SCHOLARSHIPS

Cover prizes, awards and scholarships for scientific research and development.

E. Comments on principal sources

This Subsection is to serve the following purposes:

1) To provide an evaluation of the principal source material used in preparing the Section and thereby inform the user of the general credibility to be accorded the intelligence contained in the Section.

2) To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

Section 71. Electronics

A. General

Contains a brief discussion of the capabilities of the subject nation in electronic research and development. If sufficiently outstanding, mention may be made of governmental support of research or training of electronic personnel. Aid, such as Lend-Lease, ECA support, or outright sale of electronic equipment or information, that has been supplied from other countries will be mentioned. The outstanding research laboratories and developmental establishments should be discussed briefly.

B. Radio communications

Contains a general discussion concerning the types of equipment being developed, its modernity, indications of the development of unusual types of radio apparatus, and the adequacy of the equipment supplied. A general discussion of the probable tactical application of radio communications may be included, but a detailed list of specific equipment is not desired.

C. Communications equipment other than radio

Contains a general discussion concerning the types of equipment being developed, its modernity, indications of the development of unusual types of communications apparatus in this category, and the adequacy of the equipment supplied.

D. Navigation aids

Contains a general discussion of the types of electronic navigational aids being developed by the subject nation, such as radar, radio beacons, direction-finding stations, etc.

E. Radar

Contains a general discussion of the important types of radar and radar recognition (IFF) equipment being developed by the subject nation.

F. Infrared

Contains a general discussion of the important infrared development under way in the subject nation.

G. Acoustics

Contains a general discussion of the important types of underwater sound devices with mention of other acoustic developments of significance.

H. Vacuum tubes

Contains a discussion of the capabilities of the subject nation in the design of all types of vacuum tubes. Mention should be made of the characteristics of any special types that are being developed, and of unusual applications of those developments.

I. Components and special devices

Briefly discuss the various types of components, special electronic devices, and laboratory equipment not covered by the preceding paragraphs.

J. Electronic countermeasures

Contains a brief discussion of ECM techniques which have been devised by the subject nation, together with a description of the important equipments planned to implement those techniques. An important part of this Subsection is the assessment, whenever possible, of the susceptibility of the nation's electronic devices to countermeasures.

K. Personalities

Provide a listing, with specialties and other pertinent information, of the outstanding personalities in the program.

L. Comments on principal sources

This Subsection is to serve the following purposes:

- 1) To provide an evaluation of the principal source material used in preparing the Section and thereby inform the user of the general credibility to be accorded the intelligence contained in the Section.

- 2) To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

Section 72. Air, Ground, and Naval Weapons

A. General

Summarize the over-all capabilities of the subject country on research and development in regard to air, ground and naval weapons and other materiel referred to throughout this Section. When so desired in the preparation of this Subsection, it may be broken down into further divisions to specifically refer to individual items such as guided missiles, naval weapons, etc. The summary shall include an indication of the principal conclusions reached.

B. Aircraft and aircraft armament

1. GENERAL

Evaluate the over-all research and development capabilities of the subject country in the field of aircraft and aircraft armament, and summarize the principal conclusions.

2. AIRFRAMES

a. ORGANIZATION FOR RESEARCH AND DEVELOPMENT — A general picture is desired of military and civilian organizations which supervise, advise, control, or conduct significant research and development of airframes.

b. INSTALLATIONS — Describe briefly airframe research development and test facilities and indicate their effect on research and development capabilities.

c. BASIC TRENDS — Discuss basic research and development trends in design aspects of military and civilian aircraft types; avoid reference to specific items currently under development and limit the discussion to continuing basic projects.

3. AIRCRAFT PROPULSION

Follow the guide outlined in Subsection B, 2 above; include design aspects of reciprocating, jet, turboprop, and rocket power plants.

4. AIRCRAFT ORDNANCE

Follow the guide outlined in Subsection B, 2 above; include aircraft machine guns, cannon, rockets, bombs, bombsights, etc.

5. OTHER AIRCRAFT EQUIPMENT

Follow the guide outlined in Subsection B, 2 above; include such equipment as pressurization, oxygen and ejection systems, etc.

6. PERSONALITIES

Include brief biographic data on key personnel which provide insight into research and development capabilities. (Cross-reference personnel concerned with any other of the subjects covered by this Section.)

C. Guided missiles

1. GENERAL

Evaluate the over-all research and development capabilities of the subject country in the field of guided missiles, and summarize the principal conclusions.

2. GUIDANCE AND CONTROL

Discuss research and development trends in guidance and control; in general, limit the discussion to continuing projects, but refer to specific items currently under development where indicative of trends.

3. PROPULSION

Follow the guide outlined in Subsection C, 2 above.

4. AERODYNAMICS AND STRUCTURE

Follow the guide outlined in Subsection C, 2 above.

5. WARHEADS AND FUZING

Follow the guide outlined in Subsection C, 2 above.

6. ORGANIZATION FOR RESEARCH AND DEVELOPMENT

A general picture is desired of military and civilian organizations which supervise, advise, control, or conduct significant research and development.

7. INSTALLATIONS

Describe briefly research, development, test facilities, and proving grounds and indicate their effect on the missile program.

8. PERSONALITIES

Include brief biographic data on key personnel which provide insight into research and development capabilities. (Cross-reference personnel concerned with any other of the subjects covered by this Section.)

JUNE 1951

SCIENTIFIC

~~CONFIDENTIAL~~**D. Antiaircraft weapons and equipment****1. GENERAL**

Evaluate the over-all research and development capabilities of the subject country in surface launched antiaircraft weapons (excluding guided missiles), and summarize the principal conclusions.

2. GUNS AND AMMUNITION

a. ORGANIZATION FOR RESEARCH AND DEVELOPMENT — A general picture is desired of military and civilian organizations which supervise, advise, control, or conduct significant research and development pertaining to guns and ammunition, including fuzing.

b. INSTALLATIONS — Describe briefly research, development and test facilities and indicate their effect on research and development capabilities.

c. BASIC TRENDS — Discuss basic research and development trends in design aspects of antiaircraft gun and ammunition types; avoid reference to specific items currently under development and limit the discussion to continuing basic projects.

3. UNGUIDED ROCKETS

Follow the guide outlined in Subsection D, 2 above; include design aspects of unguided rockets and associated equipment of the "Taifun" types.

4. FIRE CONTROL EQUIPMENT

Follow the guide outlined in Subsection D, 2 above; include design factors relative to unique electronic and mechanical antiaircraft fire control systems and associated equipment.

5. PERSONALITIES

Include brief biographic data on key personnel which provide insight into research and development capabilities. (Cross-reference personnel concerned with any other of the subjects covered by this Section.)

E. Ground weapons and equipment**1. GENERAL**

Evaluate the over-all research and development capabilities of the subject country in the field of ground weapons and equipment and summarize the principal conclusions.

2. COMBAT VEHICLES

a. ORGANIZATION FOR RESEARCH AND DEVELOPMENT — A general picture is desired of military and civilian organizations which supervise, advise, control, or conduct significant research and development of combat vehicles, including self-propelled guns.

b. INSTALLATIONS — Describe briefly combat vehicle development and test facilities and indicate their effect on research and development capabilities.

c. BASIC TRENDS — Discuss basic research and development trends in design aspects of combat vehicles; avoid reference to specific items currently under development and limit the discussion to continuing basic projects.

3. GENERAL PURPOSE VEHICLES

Follow the guide outlined in Subsection E, 2 above; include design aspects of unique development relative to power plants, transmission and traction devices.

4. ARTILLERY

Follow the guide outlined in Subsection E, 2 above, including field, antitanks, howitzers, ground support rockets, and mortars together with associated fire control equipment and ammunition, but excluding antiaircraft weapons covered in Subsection D above.

5. INFANTRY WEAPONS

Follow the guide outlined in Subsection E, 2 above, including small arms, machine guns, anti-tank rifles, grenades, bazookas, etc., and associated ammunition.

6. MINES AND MINE CLEARANCE EQUIPMENT

Follow the guide outlined in Subsection E, 2 above, including mines and associated fuzes, actuating and control devices, as well as detection and clearing equipment.

7. STREAM CROSSING EQUIPMENT

Follow the guide outlined in Subsection E, 2 above, including bridging in general as well as assault boats and other associated equipment.

8. SPECIAL ARCTIC EQUIPMENT

Follow the guide outlined in Subsection E, 2 above, including shelter, clothing, rations, vehicles, fuels and lubricants and other unique special equipment or materiel.

9. OTHER

Follow the guide outlined for Subsection E, 2 above, in discussing any other ground weapons or equipment.

10. PERSONALITIES

Include brief biographic data on key personnel which provide insight into research and development capabilities. (Cross-reference personnel concerned with any other of the subjects covered by this Section.)

~~CONFIDENTIAL~~

PAGE VII-7

~~CONFIDENTIAL~~

CHAPTER VII

JUNE 1951

F. Naval weapons**1. GENERAL**

Evaluate the over-all research and development capabilities of the subject country in the field of naval weapons and equipment and summarize the principal conclusions.

2. HULL DESIGNS

a. ORGANIZATION FOR RESEARCH AND DEVELOPMENT — A general picture is desired of naval and civilian organizations which supervise, advise, control, or conduct significant research and development of ship hull designs.

b. INSTALLATIONS — Describe briefly hull design research, development and test facilities and indicate their effect on research and development capabilities.

c. BASIC TRENDS — Discuss basic research and development trends in design aspects of naval vessels; avoid reference to specific items currently under development and limit the discussion to continuing basic projects.

3. SHIP PROPULSION

Follow the guide outlined in Subsection F, 2 above; include design aspects of turbine, jet and closed-cycle power plants.

4. UNDERWATER ORDNANCE

Follow the guide outlined in Subsection F, 2 above; include such weapons as mines, torpedoes,

depth charges, ahead-thrown weapons, water-penetrating rockets and their launchers, fire control systems, etc.

5. SURFACE ORDNANCE

Follow the guide outlined in Subsection F, 2 above; include anti-surface vessel offensive weapons and associated fire control and target designation systems.

6. PERSONALITIES

Include brief biographic data on key personnel which provide insight into research and development capabilities. (Cross-reference personnel concerned with any other of subjects covered by this Section.)

G. Comments on principal sources

This Subsection is to serve the following purposes:

1) To provide an evaluation of the principal source material used in preparing the Section and thereby inform the user of the general credibility to be accorded the intelligence contained in the Section.

2) To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

Section 73. Atomic Energy**A. General**

A brief summary of the over-all capabilities in the field of atomic energy.

B. Organization

Details of governmental organizations for the control of atomic energy activities including the names of people in important positions.

C. Appropriations

A summary of appropriations for atomic energy research, development and production, laboratory maintenance, construction or expansion.

D. Scientific training program

A summary of government and privately-sponsored programs designed to increase the numbers of technically-trained personnel in this field.

E. Personalities

A listing with specialties and other pertinent information, of the outstanding personalities in the program.

F. Research facilities

Descriptions of principal facilities, government and private, engaged in research and development in the field of atomic energy, discussing the physical size, the organization, equipment available, and usual types of research undertaken.

JUNE 1951

SCIENTIFIC

~~CONFIDENTIAL~~**G. Supporting industrial firms**

Industrial firms capable of, or known to be, furnishing major support to an atomic energy project, but not covered under H or I.

H. Sources and production of basic materials

Location of mines and processing plants and description of processes involved from raw material to end product for such essential materials as uranium, thorium, heavy water, beryllium, pure graphite, pure calcium, magnesium, lithium, etc.

I. Production of reactive materials

Plants and equipment actually engaged in the production of reactive materials on other than a laboratory scale including description of processes and equipment and total production.

J. Applications

Estimate of capabilities for various applications, apparent and/or announced, of the atomic energy program, such as weapons, power, isotopes for medical research, or basic research.

K. Comments on principal sources

This Subsection is to serve the following purposes:

1) To provide an evaluation of the principal source material used in preparing the Section and thereby inform the user of the general credibility to be accorded the intelligence contained in the Section.

2) To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

Section 74. Biological Warfare (BW)**A. General**

Summarize the following topics: the over-all capabilities of the subject country in the BW field; the general historical background of its BW activities; the attitude of the government and people toward the development of this program; the general organization and control of BW activities and the priority established in relation to other scientific programs; and the general plans and preparations for future use of and defense against BW. This brief statement or summary should reflect the conclusions reached by the following subsections, including the industrial potential of the country to produce agents and materiel for warfare.

B. Capabilities, organization and policies for research and development

The purpose of this Subsection is to assess the capacity and effectiveness of the directional and supervisory forces existing in the country, as well as to show the extent of the current scientific and technical effort bearing on BW, and the feasibility of conversion to a military effort in case of total war. This topic should cover an organizational outline or summary of the interrelationships of the following: top-level government administration; research institutes and applied research laboratories under direct governmental control; field-testing stations; and non-governmental activities,

including university and industrial laboratories wherein pure and applied research may be deemed to support the governmental BW program. (Details listing facilities and personnel of specific installations to be discussed in Subsections D and E.)

Give the current capabilities of the subject nation in respect to BW research and development; the policies of that government governing the control, development and exploitation of BW and funds allocated for basic and applied BW research and development.

C. Research, development and field testing

This Subsection is directed toward research and development of BW agents; new material and techniques for dissemination; and new materials or techniques for detection, identification and protection. (Lists of installations and personalities should be given in Subsections D and E.) It is suggested that the subject matter be treated as follows:

1) Discuss the research program on developmental BW agents and list those that have been studied or tested.

2) Discuss pilot stage of developing BW agents and any evidence of full scale production, stockpiling, field testing and standardization of materials so produced.

~~CONFIDENTIAL~~

PAGE VII-9

~~CONFIDENTIAL~~

JUNE 1951

3) Discuss raw materials, new developments in processes, requirements for special materials and equipment for the production of BW agents and materiel. This Subsection might also well include any known plans for the production of such materials that may be presumed to be under consideration. Critical shortages of these, or recognized inability to produce, should be pointed out.

4) Discuss research and development programs directed toward the production of new and improved materials, techniques and equipment for defensive BW, e.g., detection (materiel and techniques); impermeable clothing or impregnated fabrics; filters; paper for filters; charcoal and other absorbents; masks; shelters; decontaminants; prophylactics (immunization, etc.); treatment of man, animal or plant victims (antibiotics, drugs, antidotes, isolation, killing or destruction, etc.). (References can be made to appropriate medical and public health sections of the NIS for details.)

5) Present similar information as in Subsection C, 4) concerning research and development on types of equipment and methods for the dissemination of BW agents and field testing of any equipment produced through pilot plant operation, e.g., such as: generation or dispersal by explosive charges, special propellants and aerosol bombs; dispersal of liquids and solid masses by nozzels and other devices; and simplified methods of dissemination, special munitions, etc.

6) Present studies leading to more adequate assessment of the relative effects or requirements in combat or strategic bombing of a) BW vs. HE and others, and b) the different BW disseminating methods or munitions under specific micro-

meteorological and climatological conditions. Any meteorological studies specifically directed toward BW should be included.

D. Installations

Give exact locations, descriptions, and brief statement of activities of known and suspected BW research installations and pilot plants; plants for production of BW agents; and munitions still in development and testing installations and areas. Available information on special equipment and other facilities of these installations should be described also.

E. Personalities

Give the full names, positions and brief biographies (include accomplishments) of the principal personalities (scientists and administrators) involved in BW research and development.

F. Comments on principal sources

This Subsection is to serve the following purposes:

1) To provide an evaluation of the principal source material used in preparing the Section and thereby inform the user of the general credibility to be accorded the intelligence contained in the Section.

2) To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

Section 75. Chemical Warfare (CW)

A. General

Summarize the following topics: the over-all capabilities of the subject country in the CW field; the general historical background of its CW activities; the attitude of the government and people toward the development of this program; the general organization and control of CW activities and the priority established in relation to other scientific programs; and the general plans and preparations for future use of and defense against CW. This brief statement or summary should reflect the conclusions reached by the following subsections, including the industrial potential of the country to

produce agents and materiel for warfare. (The details of chemical industries, etc., are given in CHAPTER VI.)

B. Capabilities, organization and policies for research and development

The purpose of this Subsection is to assess the capacity and effectiveness of the directional and supervisory forces existing in the country, as well as to show the extent of the current scientific and technical effort bearing on CW, and the feasibility of conversion to a military effort in case of total war.

~~CONFIDENTIAL~~

This topic should cover an organizational outline or summary of the interrelationships of the following: top-level government administration; research institutes and applied research laboratories under direct governmental control; field-testing stations; and non-governmental activities, including university and industrial laboratories wherein pure and applied research may be deemed to support the governmental CW program. (Details listing facilities and personnel of specific installations to be discussed in Subsections D and E.)

Give the current capabilities of the subject nation in respect to CW research and development; the policies of that government governing the control, development, and exploitation of CW and funds allocated for basic and applied CW research and development.

C. Research, development and field testing

This Subsection is directed toward research and development of new CW agents, smokes, incendiaries, flame warfare materials; new materials or techniques for dissemination; and new materials or techniques for detection, identification and protection. (Lists of installations and personalities should be given in Subsections D and E.) It is suggested that the subject matter be treated as follows:

- 1) Discuss the research program on new or developmental CW agents and list those that have been studied or tested. (New CW agents shall be understood as those not to have been developed beyond the pilot plant stage, or those for which full schedule production has not been established on a firm basis as, for example, the German nerve gases, in the case of intelligence pertaining to the U.S.S.R.)

- 2) Discuss pilot stage of developing new CW agents and any evidence of full scale production, stockpiling, field testing and standardization of materials so produced.

- 3) Discuss raw materials, new developments in process, requirements for special alloys, materials and equipment for the production of new CW agents and materiel. This Subsection might also well include any known plans for the production of such materials that may be presumed to be under consideration. Critical shortages of these, or recognized inability to produce, should be pointed out.

- 4) Discuss research and development of flame warfare materials, incendiaries and smokes (fuels and materiel).

- 5) Discuss research and development programs directed toward the production of new and improved materials, techniques and equipment for

defensive CW, e.g., detection (materiel and techniques); impermeable clothing or impregnated fabrics; filters; paper for filters; charcoal and other absorbents; masks; shelters; decontaminants; treatment of casualties (ointments, antidote, etc.).

- 6) Present similar information as in subsection C, 5 concerning research and development on new types of equipment and methods for the dissemination of CW agents and field testing of any equipment produced through pilot plant operation, e.g., such items as generation or dispersal by explosive charges, special propellants, aerosol bombs, and special heat generators; dispersal of liquids and solid masses by nozzles and other devices; and simplified methods of dissemination, special munitions, etc.

- 7) Present studies leading to more adequate assessment of the relative effects or requirements in combat or strategic bombing of a) CW vs. HE and others, and b) the different CW disseminating methods or munitions under specific micrometeorological and climatological conditions. Any meteorological studies specifically directed toward CW should be included.

D. Installations

Give exact locations, descriptions, and brief statement of activities of known and suspected CW research installations and pilot plants; plants for production of CW agents and munitions still in development; and testing installations and areas. Available information on special equipment and other facilities of these installations should be described also.

E. Personalities

Give the full names, positions and brief biographies (include accomplishments) of the principal personalities (scientists and administrators) involved in CW research and development.

F. Comments on principal sources

This Subsection is to serve the following purposes:

- 1) To provide an evaluation of the principal source material used in preparing the Section and thereby inform the user of the general credibility to be accorded the intelligence contained in the Section.

- 2) To indicate those aspects of the subject about which information is deficient or unavailable and thereby provide collectors of information with collection targets. In this connection, the principal sources (not necessarily all sources) actually used should be indicated.

~~CONFIDENTIAL~~

CHAPTER VII

JUNE 1951

Section 76. Miscellaneous

As a general over-all requirement for each Area, all phases of relatively permanent and fundamental aspects of scientific research and development, through the prototype stage, which are not otherwise covered in the NIS text, but which have potential military significance must be considered for inclusion within this Section. Final determination as to whether or not certain subjects will be discussed shall depend upon their importance within the particular area and the availability of production manpower.

~~CONFIDENTIAL~~